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THE
BUTLER HOSPITAL
FOR THE
INSANE.

PROVIDENCE, R. I.

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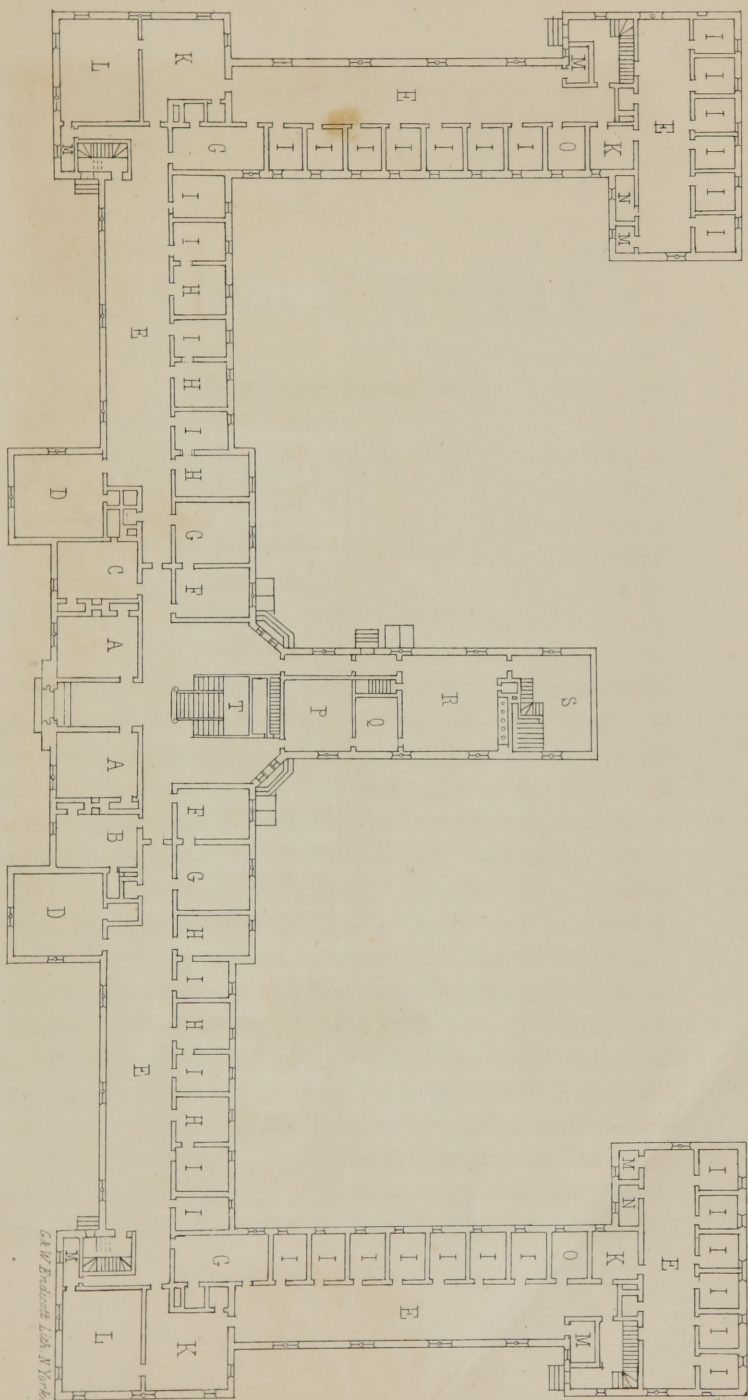
T. A. T. & A. B.

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L. GORDON, SCULPTOR.

BUTLER HOSPITAL FOR THE INSANE

Providence R.I.



PLAN OF BUTLER HOSPITAL.

Scale of 40 feet to the inch.

DESCRIPTION

CHAPTER I

The first part of the work is devoted to a description of the general principles of the theory of the subject. It is divided into two main sections, the first of which is devoted to a description of the general principles of the theory of the subject, and the second to a description of the particular principles of the theory of the subject. The first section is divided into two main parts, the first of which is devoted to a description of the general principles of the theory of the subject, and the second to a description of the particular principles of the theory of the subject. The second section is divided into two main parts, the first of which is devoted to a description of the general principles of the theory of the subject, and the second to a description of the particular principles of the theory of the subject.

DESCRIPTION

OF THE

BUTLER HOSPITAL

For the Insane.

PROVIDENCE, R. I.

BY I. RAY, M. D. *Superintendent.*

[From the Journal of Insanity.]

The "Butler Hospital for the Insane," originated with the late Nicholas Brown, of Providence R. I., one of those "merchant princes," who have shed a lustre on the mercantile character by devoting a liberal portion of the fruits of their well directed enterprise, to the cause of learning, and the relief of suffering humanity. In a codicil to his will, bearing date the third day of May, 1841, he directed that the sum of thirty thousand dollars should be appropriated towards the establishment of a hospital for the insane, "where that unhappy class of our fellow-beings who are, by the visitation of Providence, deprived of their reason, may find a safe retreat, and be provided with whatever may be most conducive to their comfort, and their restoration to a sound mind." This noble purpose soon met with the requisite support from Cyrus Butler Esq. of the same city, who contributed towards it forty thousand dollars, and many others, citi-

zens or natives of Rhode Island, whose subscriptions swelled the amount to one hundred and twenty-seven thousand dollars, all of which, with the exception of a few hundred dollars, was collected and paid into the bank, as early as October, 1845.

With this sum at their disposal, excepting fifty thousand dollars, of which only the interest could be used, the Trustees commenced their inquiries relative to the manner in which they could best meet the wishes of the benefactors of the institution, and supply the peculiar wants of this community. In the first place, it was concluded that it should be made capable of receiving from one hundred and twenty to one hundred and thirty patients, and of furnishing accommodations varying in some degree, at least, with the terms of remuneration; that it should combine the qualities of a public and private establishment where the poor should be provided for in a manner equal to that of our best State institutions, and the rich should receive something like an equivalent for any compensation they might be required to make. It was thought, however, that the number of this latter class who would have occasion to resort to the hospital from this immediate neighborhood, would be too small to admit of the necessary arrangements, without seriously interfering with any wholesome system of classification, and destroying all architectural proportions in the building. But it was supposed that if the opportunity were offered, others of this class out of the State would seek the benefits of the institution, and thus materially contribute to defray its expenses. Actuated by this consideration, the Trustees resolved to erect an establishment somewhat larger than would be required by the necessities of Rhode Island alone.

In preparing their plans of building, the Trustees were desirous of availing themselves of all the modern im-

provements, and not only visited most of the institutions for the insane in New England, but considered it as well worth the effort to extend their inquiries beyond our own country. For this purpose they fortunately engaged the services of Dr. Bell, Superintendent of the Mc Lean Asylum, who was peculiarly fitted by his great practical knowledge of insanity and the insane, and his correct architectural views, to obtain the information they wished. With the same liberality and kindness which have always placed the means of improvement possessed by that institution, within the reach of the humblest inquirer, he was permitted by its Trustees to assume this duty, and in the early part of the year 1845, he visited the principal establishments in Europe, and obtained the plans of all the more recently constructed buildings. The results of his observations, as reported to the Trustees of the Butler Hospital, were published in this Journal for July 1845. Accompanying this report he also submitted a plan of building published with his report, calculated, in his opinion, to meet all the requirements of the case, in the best possible manner, and embracing as far as practicable, all the recent improvements. The plan, with some unessential modifications, was adopted, as well as the main features of the elevation as suggested by Dr. Bell. It is my purpose at present to describe our architectural arrangements only so far as they differ from those of most similar institutions among us. The rest will be sufficiently explained by the accompanying plan and view.

Instead of low and narrow galleries having a range of sleeping rooms on each side, and imperfectly lighted at the ends, we have broad, high-storied galleries with rooms on one side only and windows on the other. The contrast between the light and cheerful appearance of the latter, and the narrow, cramped and prison-like aspect

of the other, is striking to every one whose eye is familiar with both, and the advantage thus gained is well worth the additional expense of this mode of building. The perpetual sight of a row of doors with intervening spaces of dead, white wall, is poorly calculated to relieve the tedium of confinement, or divert the thoughts into healthier channels. This disagreeable effect is avoided when from one side of the corridor, the eye has an uninterrupted view of the neighboring country which, if the location of the establishment has been well selected, will be a source of perpetual interest to a large portion of the inmates. Even the many who care little for beautiful prospects, are better pleased with looking out upon a sheet of water, or a grove, or a village, or a distant hill, than a monotonous succession of bed-rooms. To relieve this defect of galleries having a double row of rooms, patients are sometimes permitted to have free access to their sleeping rooms during the day, in order that they may enjoy the view from the window, and also that additional light may be admitted into the galleries. This practice keeps the rooms in an untidy condition, and leads to indolent, if not pernicious habits.

In the central galleries, the rooms differ in size, the larger being intended for private parlors, each communicating with a smaller room to be used for sleeping. This arrangement is intended for such as wish and are willing to pay for a couple of spacious and well furnished apartments. Connected with each of these galleries is a common parlor provided with a grate, and thus affording what many persons regard as indispensable to domestic comfort, an open fire.

The position of the rooms for the attendants of the principal galleries, is one of our architectural arrangements, which is believed to be attended with peculiar advantages. This room is usually one of the regular

series, on each side of the corridor, scarcely differing from any of the rest, and consequently, not designed to afford the attendants any facility for watching their charge, or assisting one another. On the contrary, the one least adapted for these purposes, is that usually chosen. Here, these rooms are large and well lighted, with ample space for the effects of the attendants, and the various articles of furniture and clothing of which they have charge. Situated at the point where the two galleries meet, and commanding a view of both, the attendants, when necessarily engaged in their rooms, are able, through the glazed doors, to observe from the same point what is passing in both and are more likely to be at hand to assist one another, than if they were dispersed about each in a room by himself. Another advantage in this position of these rooms is, that it permits an easy, unobtrusive supervision of the attendants themselves. The attendants' rooms in the other galleries are as favorably situated as could be wished, the same kind of supervision not being so necessary here as in other parts of the house.

The associated dormitories are contiguous to the attendants' rooms, and easily observed from the latter through the latticed door between them. They are pleasantly situated, somewhat removed from the noises of the galleries, connected with water-closets, and abundantly ventilated. Thus far we have experienced all the benefits peculiar to this class of apartments, with scarcely any of the evils that we apprehended. The timid and suicidal while sleeping there occasion far less anxiety and trouble, than when disposed of in the usual way. Their quiet is seldom disturbed, and there are always enough ready and willing to occupy them. They hold without crowding, six patients each, making twenty-four together, which with eighty-four single sleeping-rooms, gives us the power of accommodating one hun-

dred and eight patients, without going below the principal story, nor above the second. The upper stories of the projections, four in number, form as many large apartments that may be used for associated dormitories, or made into single rooms, for about thirty more.

In each of the rear galleries is a bathing-room designed for the violent, sick and feeble, provision being made for all others in the basement. For this purpose, one side of a large apartment beneath the associated dormitories, is divided by slight partitions, into three alcoves as they may be called, in each of which is a tub. A curtain across the entrance, secures the necessary degree of seclusion, and a stove affords the requisite warmth. The advantages of this arrangement are, that we have the room they would take up, for other purposes; we get rid from the galleries of the dampness, exposure of the person, and other disagreeable accessories to the bathing operation; and a single attendant can overlook three persons bathing at once.

The water-closets, instead of being placed in some obscure corner, obtained perhaps at the expense of some other room as is too frequently the case, are spacious, conveniently placed, and lighted directly by a window. The traps are provided with cleansing pipes, by means of which obstructions are readily removed.

The lower rear-gallery is designed for violent and noisy patients. The disposal of this class has always been regarded as among the most important and difficult points to be gained in any plan of construction. A common arrangement is, to provide for them separate small structures, at a little distance from the main building, in order that their noise may not disturb the more tranquil patients. Apart from the greater expense of such an arrangement there are other objections which prevented it from forming a part of the plan of this institution. It

is to be considered that a large proportion of this class are recent cases in which some new phase of the disease is often appearing, and which, perhaps, are under medical treatment; and that having lost the power of self-control, they are completely under the control of their attendants who are often obliged to resort to something stronger than moral suasion, in order that they may perform for their charge the most necessary offices. In short they are disagreeable, perverse, and mischievous in their dispositions, abusive in their language, incapable of expressing, or even knowing their wants, or stating their grievances. If attendants are ever disposed to abuse their power, to yield to their passions, and indulge in the use of recriminating language, it is towards this class of patients. It follows therefore that no part of the house should be more frequently visited by the officers, or subjected to a stricter surveillance. But in order that this may be done, it should be made easy of access, and equally so by day or night, in fair weather or in foul. It is obvious, however, that these conditions are not present when one is obliged to traverse a yard in the open air in order to reach it, and to equip himself to encounter a snow-storm or a north-easter. I need not say how often he would be satisfied with the report of an attendant, when otherwise he would have seen for himself, and we can only conjecture how often some new phase of disease, bodily or mental, which might have been successfully managed by timely interference, is thus overlooked, instances of injudicious treatment unobserved, and opportunities for detecting abuses unimproved.

Another very strong objection to the distant isolation of violent patients, is the unpleasant impression made upon their minds by many circumstances that necessarily attend it. Although violent and noisy, they may be full of apprehensions and suspicions which would be increased to

the point of agony, by being seized, perhaps in the night, by persons they do not know, hastily, if not insufficiently dressed, hurried along in spite of their resistance, and deposited in a distant building of a still more suspicious aspect than that they have left. If the passage is made in the open air, there is in the night time the risk of taking cold on the part of both attendants and patients, and in the daytime improper exposure and publicity. If the buildings communicate by an underground passage, then the patient contracts the notion that he is to be removed to some dungeon or dark cell, and though they may know better, many, with that perversity peculiar to insanity, rejoice to have the slightest ground for complaint.

In determining the arrangements for this class of patients, the above considerations were allowed to have great weight; and it was concluded that the evils here mentioned would more than counterbalance the trouble that might arise from having the quiet and refractory patients in too close proximity to each other. The advantages alleged in the latter arrangement seemed to be sure and unquestioned; its disadvantages uncertain and trivial. In the plan of separate structures, however, these conditions are thought to be completely reversed. By our arrangement, the strong rooms are reached from the gallery appropriated to the more active forms of disease, either by passing through an entry, or the attendants' room. In the day-time the patient may be transferred without being scarcely aware of any compulsion. In the night the transfer merely amounts to a change from one room to another in the neighborhood, without the trouble and delay of dressing, and the change is effected without producing any of the irritation which too often occurs, and giving rise to a sense of degradation and punishment.

In the construction of the rooms of violent patients, it

has been too often the case, that almost every other quality has been sacrificed to that of strength, and certainly it would be difficult to make anything more like the cells of ordinary jails. Upon minds distracted by suspicion and terror, such apartments cannot but produce a most unfavorable impression which may never be obliterated. After recovery it leads the patient to anticipate with dread any future residence in the hospital, instead of regarding it as, otherwise, no doubt, he often would, a desirable haven of refuge from the storm of disease.

Our apartments for the violent class are not essentially different from the rest, consisting of the ordinary gallery with a range of rooms on one side, and large windows at the ends. Pains have been taken to divest the rooms as much as possible, of those forbidding features they sometimes present, and give them the appearance of ordinary rooms. The floors are laid, as in the usual way, of wood, and as the warm-air chamber runs directly beneath them, they are never uncomfortably cold. True, wood retains odors longer than stone, and this is certainly a drawback upon its advantages, as a flooring, over the latter. The walls are finished as in all other parts of the house, that is, plastered directly upon the bricks, hydraulic lime being substituted for the ordinary kind. The preference was given to plastered instead of ceiled walls, because they are easily washed and repaired when broken, while the latter are liable to be hacked, and the joints and crevices are sure to be made depositories of filth.

These rooms, like the others, have the ordinary door and window. The former is battened on the inside, and provided with an aperture for the purpose of inspection, that is closed by a sliding plate. The window is furnished with a stout shutter suspended by cords and weights like the sashes, which may be raised so as to cover any portion of the window, or pushed down quite out of sight

into the basement below. For greater security the upper half of the window is guarded by wire netting. By these means patients to whom the privilege would be suitable are enabled to enjoy the direct light, and when vacated in the morning, the rooms can be aired by raising the window, more rapidly than by the most active forced, ventilation, and that too without cooling the adjacent apartments.

In one corner is a seat built into the wall, and in the other is the close-stool. The latter consists of a conical iron pan whose apex stands in a hole in the floor to which it is screwed by means of a flange. Thus its contents are discharged into a soil-pipe that passes along beneath the floors, in the cellar. They are all trapped, and the traps provided with cleansing pipes. For additional security, a leaden plug perforated with holes, is placed at the bottom of the close-stool, beyond reach of the patient. The whole is enclosed in strong masonry at the sides, and a hard-wood seat cover the top. It is washed out in the following manner. A water-pipe runs along in front of the doors, in the hall, just beneath the floor, and sends a branch to each close-stool, which discharges at the top of the pan in the usual way. At the point of division is a stop-cock which is reached by a little trap-door in the floor, and by means of it the attendant is enabled to let on the water at pleasure. These contrivances I regard as infinitely superior to those ordinarily used, because they are less noisome and more seemly. I do not mean to say however, that by this or any other practicable arrangement, we can get rid of all odors, as completely as by the common water-closet.

A spacious, well-lighted, well-furnished hall with clothes-closet, bathing room, &c., I consider an indispensable part of the arrangements for violent patients. In their quiet moments they can be permitted, without any

trouble, to enjoy the liberty of circulating in this hall, and can as readily be transferred to their rooms when necessary. Such an indulgence contributes much to the relief of inordinate excitement, and prevents the deteriorating effects of protracted seclusion.

The principal, if not the only objection, to this proximity of the strong rooms to the other parts of the house, viz. that their noise is liable to be heard by other patients, has not proved a very serious one with us. It will be seen that between this and the adjacent gallery is a space a few feet wide, enclosed by eight-inch walls, and in traversing these, sounds are so much softened as to give little or no practical inconvenience. This obstruction to the passage of sound might have been much increased by giving these walls the additional thickness of a brick, and by running up another wall across that end of the hall so as to enclose a space that would serve for a clothes-closet or washing-room. The jar produced by pounding and jumping is perceptible to a considerable distance, but not sufficiently to disturb the slumbers of any, except perhaps of those directly overhead, and they are of a class of demented patients who are not easily disturbed. At any rate, the evil must be considerably increased, before we can regard it as counterbalancing all the advantages which we derive from the present arrangement.

Upon nothing do the health and comfort of the inmates of an insane hospital more depend, than its system of warming and ventilation. Unless the temperature of the apartments is sufficiently high, they are constantly shivering and complaining. Unless the warmth is equally distributed, they are disposed to crowd around the registers for a chance to warm one part of their body while the rest is uncomfortably cold. Unless frequently changed, the air becomes loaded with noisome effluvia, disagreeable to the senses and oppressive to the brain. Our insane

hospitals, as well as other public buildings, have, generally, been very deficient in these essential provisions. The importance of sufficient and equally diffused warmth, and thorough ventilation, is universally admitted, but, until a comparatively recent period, scarcely an attempt to accomplish this object has been quite successful. This has been owing, chiefly, I imagine, to a misapprehension of some facts in physical science. People have acted upon the supposition that very hot air mingled in suitable proportions with cold air would give the temperature required; and also that the amount of ventilation necessary to comfort is much smaller than it actually is. Accordingly, where the warming is accomplished by introducing heated air, the cold air is admitted in very small quantities into a very small furnace-chamber, there raised to a temperature perhaps of 7 or 800, and thereby subjected to a change in its chemical constitution, which gives it an unpleasant odor, and unfits it for respiration. Mistaking the evil for excessive dryness of the air, resort is had to the evaporation of water in the furnace-chamber, in order to supply the supposed deficiency of moisture. That the air may be deprived of its moisture by the chemical changes induced by the great heat of the apparatus, is not at all improbable, but the idea that it may be *merely* desiccated, is a puerile kind of philosophy. What becomes of the moisture? It is a child's answer to say, it is evaporated, for the question recurs, what becomes of the vapor? The truth is, air is not deprived of a particle of its moisture by being heated to any degree short of producing chemical change, and if thus changed, the evaporation of water is a poor substitute for the evil. And then to make room for this wretched air which is introduced into the apartments, provision is made for carrying off the air rendered impure by respiration, upon a scale ludicrously inadequate for the pur-

poses of ventilation. It is not uncommon to see an apartment intended to accommodate five hundred persons, furnished with ventilating flues but little more than adequate for maintaining the purity of the air in a single bedroom. These deficiencies in warming and ventilating have been felt and deplored, but most of the attempts to remedy them have been frustrated, in consequence of misapplying some principles of physical science.

It may now be considered as an established principle, that in large buildings designed for accommodating many persons, the warming and ventilation must be parts of one general system. The same fresh air which is designed for ventilation, also must be made the medium for communicating heat to the different apartments. The first point to be determined, is the amount of ventilation, and that will depend, of course, on the size of the rooms, and the number and condition of the inmates. The capacity of the ventilators being decided upon, that of the flues for the admission of the external air to the furnaces, is easily determined, for they ought to be in exact relation to each other. The registers by which the warmed air is admitted into the rooms must have the same aggregate area as that of the flues by which the cold air is admitted. The warming apparatus should be capable of warming the fresh air sufficiently for the comfort of the inmates, but if this object cannot be obtained without raising the temperature of the air so high as to burn it, then the deficiency should be met by warming a larger quantity of air. The principle is that the requisite temperature should be obtained, not by small quantities of very hot air, but by large quantities of moderately heated air. Upon this principle the arrangements for warming and ventilating the Butler Hospital, as proposed by Dr. Bell, were designed, and none of the variations from his plan, have been suffered to conflict with it.

That gentleman, in his report already referred to, proposed to warm the fresh air by bringing it in contact with steam-pipes running just beneath the floors in the cellar from the boiler in the central part of the building to the extremities of the wings. They were to be enclosed in a wooden box or flue, with apertures on its under side for the admission of cold air, and on its upper side for letting it off into the flues above. The ventilating flues were to lead downward into underground drains all of which were to concentrate in the kitchen chimney which was to be carried up to a considerable height. An arrangement like this Dr. Bell had observed in the Kent county asylum at Maidstone, England, and regarded it as the most successful attempt to obtain a forced ventilation, at no other cost than the outlay for the fixtures. The Trustees of this hospital, however, without doubting the soundness of the principles concerned in the arrangement, or the utmost success claimed for it in the particular instance, were deterred from adopting it by several considerations. They were of the opinion that some of the conditions of its application might, possibly be overlooked in another trial; that the system of underground foul-air flues would require a disproportionate amount of their means; that steam-pipes were expensive to maintain in repair, and somewhat unmanageable and liable to derangement. They concluded therefore to substitute furnaces for steam-boiler and pipes, and an upward ventilation into the smoke-chimnies, for the underground flues and tall chimney. Accordingly three furnace-chambers were made on each side of the building, one near the centre, one at the junction of the front and lateral wings, and a third, at the junction of the lateral and rear wings. In each chamber are placed two pots for burning anthracite, a fresh-air flue with an area of five square feet discharging into the chamber, and a chimney springing from

one of its walls. The pots are lined with soap-stone, and consequently never made red hot. The furnace-chambers communicate together by another chamber four feet wide and eight feet high, and which, indeed is merely a continuation of the furnace-chamber. Along the upper part of this long chamber, run the smoke-pipes, made of copper, ten inches in diameter, the pipe from each furnace running to the chimney connected with the next furnace-chamber. The outer wall of this long chamber supports the partition-walls between the sleeping-rooms and hall, while the inner wall rises only to the floor above. Apertures are made in the top of it through which the warm air escapes into the flues in the partition wall. Two flues are made in every space between two sleeping-room doors, one for the lower story with an area of 96 square inches, and the other, for the story above just half the size. Owing to the greater activity of draft, it was supposed that the latter would convey as much air as the other. The draft, no doubt, is greater in the longer column, but it is doubtful whether the proportions which we have established are the true ones. Any inequalities however, in the distribution of warm air, may be easily obviated by means of registers at the openings of the flues, or by regulating the area of the apertures in the roof of the air-chamber. The great point is, to have enough warm air at our command, and then we may regulate the distribution of it as we please.

The area of each cold air flue being five square feet, their aggregate area will be thirty square feet. That of the warm air are nearly the same. During a high wind, far more air is forced into the furnace-chambers, than during a calm, and consequently if enough of warmth and ventilation is obtained under the latter condition, we shall have more than enough under the former. To meet this case, the cold air flues are furnished with

valves whereby the quantity of air admitted to the furnaces can be accurately adjusted. Thus the quantity of warm air carried into the apartments, equalling that of the cold air admitted to the furnace-chambers, no heat is lost in consequence of the warm air being delayed at any point in its passage. Notwithstanding the immense size of the air-chamber, no heat is imparted to its walls below the level of the smoke-pipes, because the air, as fast as it is warmed by coming in contact with the pipes, ascends into the flues. Below the pipes it is as cold as it is in any part of the cellar. A smaller air-chamber, therefore, would answer the purpose equally well, but could not, I apprehend afford the same facility which this does for inspecting the pipes, for putting them up and taking them down.

For the purpose of ventilation, flues are provided in the outer walls, extending from within a few inches of the floor to the attic from which the impure air escapes by a flue made for the purpose, in each chimney, and which is warmed in some degree by the contiguous smoke-flues. The upward draught may be still more increased by making a fire in the flue. The warm air coming into the apartments near the floor, and the mouth of the ventilators being placed at the same level, the inmates have the benefit of the warm of both the ascending and descending currents.

As much air as is discharged into the rooms, much also go out by the ventilators, and in the winter when a large quantity of warm air is forced into the building, this is amply sufficient to preserve the requisite degree of purity. In summer, however, the fresh air not being warmed, a much less quantity of it will be discharged into the house, and then if it be filled to its utmost capacity, a forced ventilation by means of fires in the chimneys will be required to maintain the purity of the air, in some

parts of the house. Whether the arrangement we have adopted will be adequate and practicable for this purpose, is somewhat doubtful. The smoke and gas by the time they have arrived so far, will have parted with the most of their heat, and consequently, can impart but little to the foul air flue; and were it otherwise, the chimneys are too short (twelve feet above the roof,) to make much draft, while the risk incurred by half a dozen fires in the attic would be a strong inducement to forego their use. Still, with our high stories, all of which are twelve feet high, and the large amount of space furnished per patient, we shall suffer no practical inconvenience, I apprehend, in any part of the house except the solitaires. In such rooms, the ventilation in summer must be forced, in order to obtain a tolerable degree of purity in the air.

The elevation of the building, which was designed by the architect agreeably to the views expressed by Dr. Bell in his report, is exceedingly appropriate to the character of the institution, and satisfactory to the most correct taste. Sufficient attention has not been given to architectural expression, in the construction of these, or any other establishments among us. The present feeling is, that if the building answers the intended purpose, no matter how it looks; or if any element of architectural beauty is sought for, it is only some fancied correctness of proportion which, however, may not prevent a very factory look. In establishments for the insane, it is particularly necessary to have regard to appearances. A long, lofty expanse of dead wall varied only by a multitude of windows, is apt to excite disagreeable associations in a cultivated mind, which it is desirable to avoid. Indeed, apart from such considerations, there is no reason why a hospital for the insane should not be a worthy specimen of art, as well as a church, or a bank. The additional expense is no reason, because to obtain the effect in ques-

tion, much additional expense is not necessary. But if it were, it would not be allowed to stand in the way of gratifying a correct public taste did it really exist. Were the public taste in art as fastidious as that of many individuals, no person would refuse to double his subscription to the erection of a public building, rather than be perpetually offended by the sight of an unmeaning, tasteless pile of materials exciting no intellectualemotion whatever, except perhaps, that of contempt or disgust at some trumpery attempt at architectural effect.

In the belief that they should consult the wishes of the community by whose contributions the institution was created, the Trustees determined to adopt a chaste, if not elegant design, though involving a little additional expense. The different divisions of the edifice are tastefully grouped together in the Tudor-Gothic style, assuming a quadrangular form, and the doors, windows and other parts present the characteristic features of the same style. The various bold projections beyond the principal line of building throw large portions of the latter into shadow, and thus give to the whole an air of dignity and grandeur which no portico however costly could impart. The principal objection to the quadrangular form is obviated by having a projection in the rear of the centre, which intercepts the communication between the wings. In the first and basement stories of this part are the domestic offices, and in the second is the chapel open to the roof. The central building and the projections are of three stories, the rest of two stories, the first two being twelve feet high, the third ten feet. Their line of junction is indicated on the outside by a belt formed of projecting brick. The wall is surmounted by a graceful cornice made of bricks expressly moulded for the purpose, and on the cornice rests a brick parapet laid in herring bone form.

The windows of the sleeping-rooms, and which of course look into the courts, are six feet high and two wide, and glazed with panes twelve inches by six—a form not unusual for domestic purposes. Those which light the halls, and which are on the outer face of the building, are formed of two of these windows brought together under a common hood moulding, and constituting, in fact, a single window divided into two lights by a central mullion. These windows, the labels, jambs and sills of which are of Connecticut free-stone, with a large oriel over the principal door-way, contribute much to the architectural effect of the building. The window-guard is made of two pieces, one to each sash, and precisely alike. The vertical divisions of the guard, instead of following those of the sash throughout, deviate from the right line towards the top, and form ogree arches, that have a graceful and pleasing appearance.

The grounds belonging to the hospital consist of about sixty acres of tillage, and fifty of native woodland, and embraces a great variety of soil and surface. The building stands in a clearing on the western bank of the Seekonk river which here widens into an expanse of a mile in breadth, and permits an extensive view of the country beyond. In every other direction the eye rests on dense groves which give to the landscape an air of retirement and repose exceedingly appropriate to the character of the establishment. A few rods from the house, but hidden from sight by the trees, is a magnificent feature of natural scenery in the shape of a ravine some hundred rods in length, and varying in depth from twenty to one hundred feet, and in width from fifty to three hundred feet. The tallest of forest trees crowd its steep banks, from which the eye looks down upon a singularly beautiful combination of running water and grassy glades, clumps of shrubbery, and groups of trees embraced by climbing vines.

The soil to some distance around the building is sandy, and affords clean, dry walks at every season of the year, except when covered by snow. The woods consist of the red and white pine, the hemlock, red cedar, red, yellow, white and black oak, chesnut, hickories of several species, horn-beam, elm, beech, yellow and white birch. The undergrowth consists chiefly of the mountain laurel in magnificent clumps, bear and chincapin oaks, wild roses, and clematis, while the blueberry, whortleberry, and blackberry advance almost to our very doors.

Thus possessing a site combining in a very high degree the necessary qualifications, and an edifice having all the improvements of the times, we have a hope that our efforts in this department of benevolence may be followed by a satisfactory measure of success.

References to the Plan.

A. A. Reception rooms, B. Doctor's office, C. Steward's office, D. D. Common Parlors for patients occupying front galleries, E. Halls for patients, F. Rooms in which patients see their friends, G. Dining-room, H. Private parlors, I. Sleeping rooms, K. Attendant's rooms, L. Associated dormitories, M. Water-closets, N. Bathing rooms, O. Wash-rooms, P. Domestics' dining room, [the door into the entry is accidentally omitted,] Q. Matron's store-room, R. Kitchen, S. Ironing and drying room, T. Store room.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
BY
JOHN HUTCHINGS
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APPENDIX TO THE HISTORY

A. D. 1630. The first settlement of the city of Boston was made by a company of Puritans, who had fled from the persecution of the Church of England in England. They arrived in the month of September, and found a small number of Indians, who had been driven from their usual haunts by the smallpox. The Puritans, who were led by John Winthrop, established a settlement on the neck of land between the city and the harbor, and called it Boston. The Indians, who were friendly to the Puritans, taught them the language and customs of the country. The Puritans, in turn, taught the Indians the Christian religion. The settlement grew rapidly, and in the year 1634, the first church was established. The city of Boston has since that time been one of the most important cities in the United States.

